

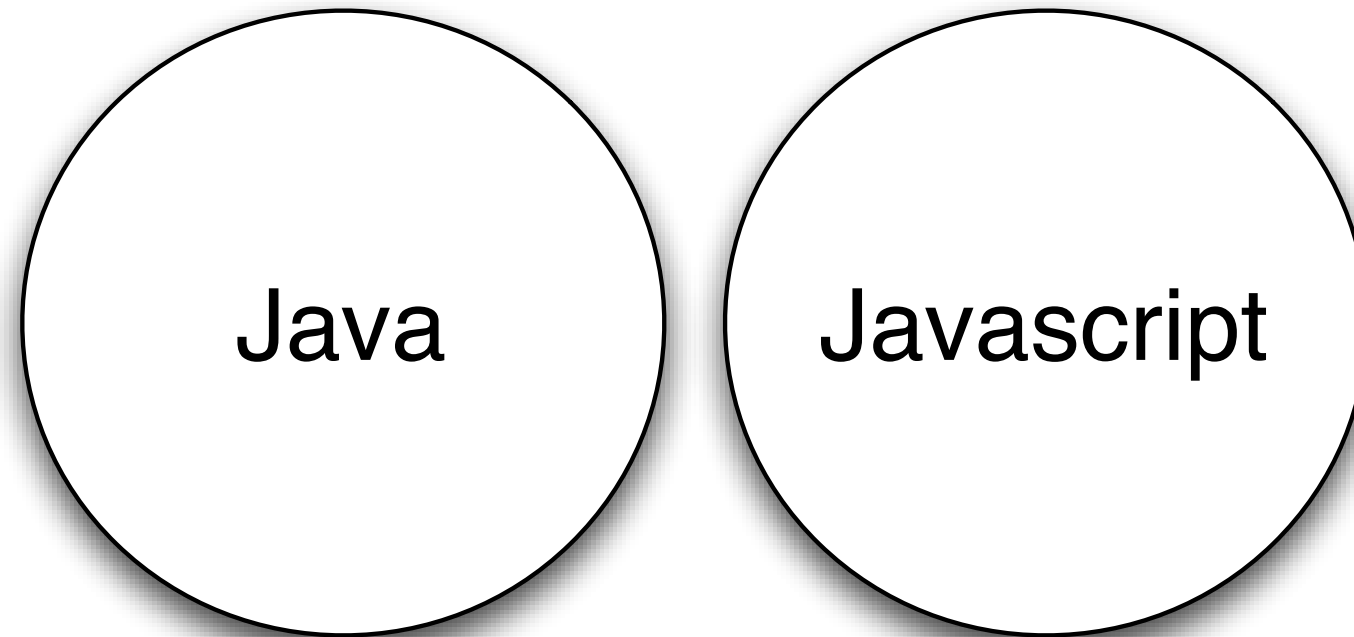
# User Interaction: Introduction to Javascript

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- First things first
- Make sure you have a decent foundation in HTML
  - See the reading from Lecture 7
- Make sure you have a copy
  - of the Chrome browser
  - or Firefox with the Firebug plug in installed
  - in order to do development

- What is JavaScript?
  - JavaScript was designed to add interactivity to HTML pages
  - JavaScript is a scripting language
  - A scripting language is a lightweight programming language
  - JavaScript is usually embedded directly into HTML pages
  - JavaScript is an interpreted language (means that scripts execute without preliminary compilation)
  - Everyone can use JavaScript without purchasing a license



- Java and Javascript are not the same
  - They unfortunately share the same name
  - They are different in what they are designed to do
  - They are different in how they came to be
- Java is more powerful and complex

- JavaScript gives web designers a programming tool
  - Simple syntax
  - Supports putting "snippets" of code into web pages
- JavaScript can put dynamic text into an HTML page
  - A JavaScript statement like this:
    - `document.write("<h1>" + name + "</h1>")`
  - can write the content of a variable into a web page
- JavaScript can react to events
  - A JavaScript can be set to execute when something happens, like when a page has finished loading or when a user clicks on an HTML element

Here is the most confusing thing

An XHTML web page is the data that javascript works with

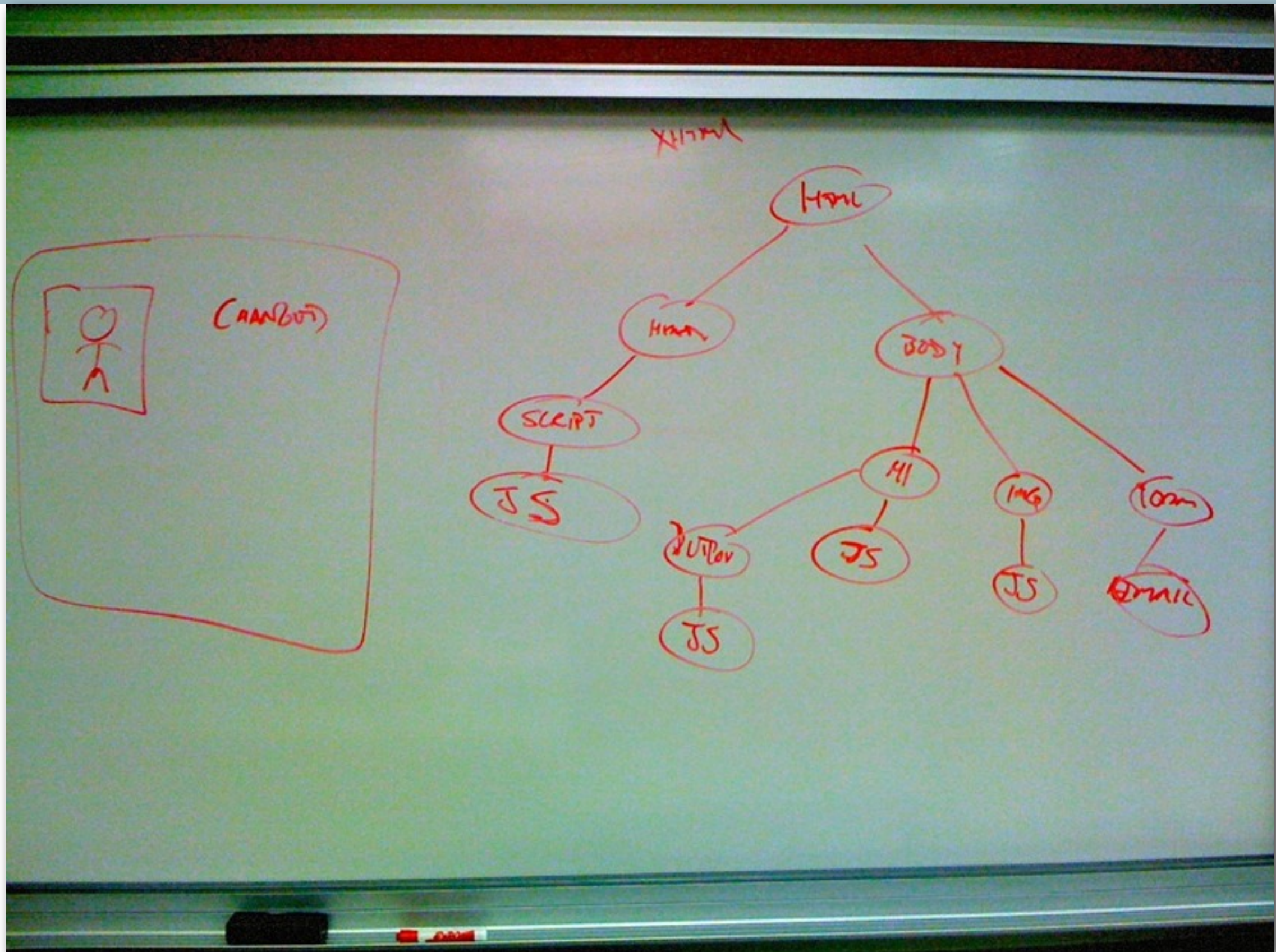
but



An XHTML web page is also where the javascript is stored

and

the web browser is constantly redrawing the XHTML as the Javascript changes it.



- JavaScript can read and write HTML elements
  - A JavaScript can read and change the content of an HTML element
- JavaScript can be used to validate data
  - A JavaScript can be used to validate form data before it is submitted to a server.

- get a Hello World running
  - This eliminates errors related to your hosting provider and web set up
  - It ensures that you have resources necessary on a web host
  - Hopefully this was solved in Assignment 01

```
<html>
  <head>
    <title>Step 1</title>
  </head>
  <body>
    Hello World
  </body>
</html>
```

- Let's put some Javascript in it
  - `<script>` tag
  - encloses javascript code that is run by the browser

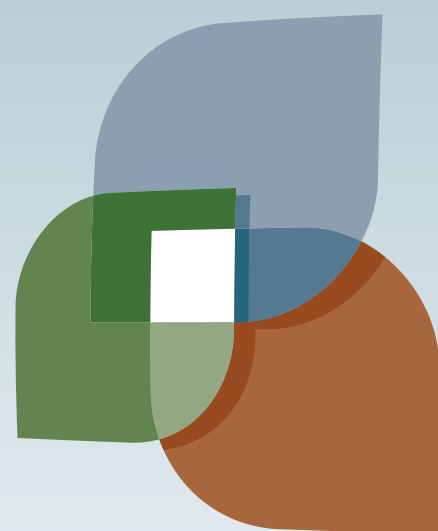
```
<html>
  <head>
    <title>Step 2</title>
  </head>
  <body>
    <script type="text/javascript">
      document.write("This is my first JavaScript!");
    </script>
  </body>
</html>
```



```
<html>
  <head>
    <title>Step 3</title>
  </head>
  <body>
    <script type="text/javascript">
      document.write("<font color=\"red\">This is my second JavaScript!</font>");
    </script>
  </body>
</html>
```

- document.write()
  - when this command is run
  - the parameter is inserted into the html document just like it was written there without any javascript





L U C I

